

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/294,539	MAW SHENQ ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Anne R. Kubelik	1638	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 12/20/04.
2. ☒ The allowed claim(s) is/are 1,2,13,22,30-32,43,52,60,62 and 70-79.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                       |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                     | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance                         |
|  | 9. <input type="checkbox"/> Other _____.  |

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*Examiner's Amendment*

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Matthew Hinsch on 4 March 2005.

IN THE CLAIMS:

Claim 1. (Currently amended). An isolated ~~nucleic acid construct comprising a~~ polynucleotide ~~sequence~~ encoding a polypeptide that is at least 95% identical to SEQ ID NO:4, wherein the polynucleotide ~~sequence~~, when introduced into a plant, enhances the plant's resistance to pathogens compared to resistance of a plant not transformed with the polynucleotide ~~sequence~~, and

wherein a first amino acid sequence comprising the polypeptide binds to a second amino acid sequence comprising SEQ ID NO:2 in a yeast two-hybrid binding assay.

Claim 2. (Currently amended). The polynucleotide ~~construct~~ of claim 1, wherein the polynucleotide ~~sequence~~ is from a rice plant.

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Claim 13. (Currently amended). The polynucleotide construct of claim 1, wherein the polynucleotide ~~sequence~~ is SEQ ID NO:3.

Claim 22. (Currently amended). The polynucleotide construct of claim 1, wherein the polynucleotide ~~sequence~~ encodes SEQ ID NO:4.

Claim 30. (Currently amended). The A construct comprising the polynucleotide of claim 1, ~~further comprising a promoter operably linked to the polynucleotide sequence~~ a promoter.

Claim 31 (Currently amended). A transgenic plant comprising a recombinant expression cassette comprising a plant promoter operably linked to a polynucleotide ~~sequence~~ encoding a polypeptide that is at least 95% identical to SEQ ID NO:4, wherein the polynucleotide ~~sequence~~, when introduced into a plant, enhances the plant's resistance to pathogens compared to resistance of a plant not transformed with the polynucleotide ~~sequence~~, and

wherein a first amino acid sequence comprising the polypeptide binds to a second amino acid sequence comprising SEQ ID NO:2 in a yeast two-hybrid binding assay.

Claim 43. (Currently amended). The transgenic plant of claim 31, wherein the polynucleotide ~~sequence~~ is SEQ ID NO:3.

Claim 52 (Currently amended). The transgenic plant of claim 31, wherein the polynucleotide ~~sequence~~ encodes SEQ ID NO:4.

Claim 60. (Currently amended) A method of enhancing resistance to pathogens in a plant, the method comprising

1) introducing into the plant a recombinant expression cassette comprising a plant promoter operably linked to a polynucleotide sequence, wherein the polynucleotide sequence encodes a polypeptide that is at least 95% identical to SEQ ID NO:4, wherein a first amino acid sequence comprising the polypeptide binds with a second amino acid sequence comprising SEQ ID NO:2 when assayed in a yeast two-hybrid binding assay; and

2) selecting a plant with enhanced pathogen resistance compared to resistance of a plant not transformed with the recombinant expression cassette.

IN THE ABSTRACT:

The present invention provides the identification and characterization of a polynucleotide encoding the rice polypeptide sequence, PNI, a proline-rich protein that interacts with Arabidopsis NPR1 in a yeast two-hybrid assay. ~~The present invention also provides the first identification and characterization of the rice polypeptide sequences that interact with the polypeptides PNI and MN1. The present invention also provides the polynucleotide sequences encoding such polypeptides as well as methods of enhancing resistance to pathogens by introducing the polynucleotide[s] into plants.~~

IN THE TITLE:

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~~Proteins that Regulate Systemic Acquired Resistance in Plants~~ NUCLEIC ACID

ENCODING AN NPR1 INTERACTOR FROM RICE AND METHOD OF USE TO PRODUCE  
PATHOGEN-RESISTANT PLANTS

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne R. Kubelik, whose telephone number is (571) 272-0801. The examiner can normally be reached Monday through Friday, 8:30 am - 5:00 pm.

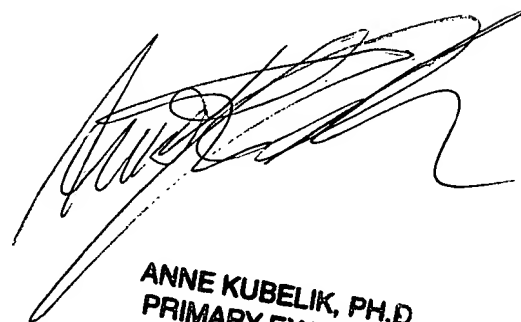
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson, can be reached at (571) 272-0804. The central fax number for official correspondence is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

Anne R. Kubelik, Ph.D.  
March 7, 2005



ANNE KUBELIK, PH.D.  
PRIMARY EXAMINER